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Search Results - Record(s) 1 through 7 of 7 returned.

1. Document ID: US 6490828 B1

L1: Entry 1 of 7 File: USPT Dec 10, 2002

US-PAT-NO: 6490828
DOCUMENT-IDENTIFIER: US 6490828 B1

TITLE: Partition wall system

DATE-ISSUED: December 10, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Fuller; Christopher S.	Grand Rapids	MI		
Krumrie; Arnold A.	Alto	MI		
Volesky; Mark C.	Belding	MI		

US-CL-CURRENT: 52/36.1; 156/471, 428/107, 428/703, 428/74, 52/309.12, 52/309.16, 52/391

ABSTRACT:

A panel covering for use in an office environment is disclosed. The panel covering includes an exterior layer including a decorative surface treatment. The panel covering also includes an interior base layer including a polymer material coupled to the exterior layer. The panel covering also includes a reinforcing layer including a porous web installed between the exterior layer and the interior layer. The polymer material may include polyethylene terephthalate or PET. A method of forming a panel covering is also disclosed.

40 Claims, 23 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

2. Document ID: US 6133169 A

L1: Entry 2 of 7 File: USPT Oct 17, 2000

US-PAT-NO: 6133169
DOCUMENT-IDENTIFIER: US 6133169 A

TITLE: Penetration-resistant ballistic article

DATE-ISSUED: October 17, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Chiou; Minshon J.	Chesterfield	VA		
Ren; Jianrong	Collex			CH
Van Zijl; Nicolas A.	Geneva			CH

US-CL-CURRENT: 442/234; 428/911, 442/232, 442/378

ABSTRACT:

A combination of layered structures is disclosed for protection from both ice pick and knife penetration and ballistic threats wherein there are flexible metallic based structures, tightly-woven fabric layers, and ballistic layers, all arranged such that the tightly-woven fabrics layers are nearer than the ballistic layers to the threat strike face of the structure.

16 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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3. Document ID: US 6119575 A

L1: Entry 3 of 7 File: USPT Sep 19, 2000

US-PAT-NO: 6119575
DOCUMENT-IDENTIFIER: US 6119575 A

TITLE: Body armor

DATE-ISSUED: September 19, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dragone; Gaetor J.	Jacksonville	FL		
Taylor; James Dale	Fernandina Beach	FL		

US-CL-CURRENT: 89/36.05; 2/2.5, 89/36.02

ABSTRACT:

In one embodiment, the present invention relates to a composite for body armor containing at least one ply comprising aromatic fibers in a first polymeric matrix, at least one ply of a woven plastic, and at least one ply comprising polyolefin fibers in a second polymeric matrix.

18 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 6021523 A

L1: Entry 4 of 7 File: USPT Feb 8, 2000

US-PAT-NO: 6021523
DOCUMENT-IDENTIFIER: US 6021523 A

TITLE: Heat and abrasion resistant woven glove

DATE-ISSUED: February 8, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Vero; Frederick A.	Easthampton	NY		

US-CL-CURRENT: 2/159; 2/167

ABSTRACT:

A hand covering is provided which is heat and abrasion resistant. The hand covering is processed by utilizing a fabric formed with conditioned KEVLAR wound with a top cover of a yarn selected from the group consisting of PANOX and VECTRAN.

12 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 5. Document ID: US 5804757 A

L1: Entry 5 of 7 File: USPT Sep 8, 1998

US-PAT-NO: 5804757
DOCUMENT-IDENTIFIER: US 5804757 A

TITLE: Flexible, lightweight, compound body armor

DATE-ISSUED: September 8, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wynne; Robert C.	Grand Island	NY		

US-CL-CURRENT: 89/36.05; 2/2.5, 89/36.02

ABSTRACT:

Flexible, lightweight, compound body armor has multiple protective layers designed to defeat incoming projectiles. The first protective layer has a flexible base layer of penetration-resistant material having, fastened to its surface, facing the exterior, a first matrix of individual hard non-planar elements, the front surface of which is non-planar and shaped such that upon impact on the surface of these individual hard non-planar elements, projectiles would be turned or rotated to change the orientation of said projectiles with respect to the surface of said protective layers in such a manner that instead of the point, the side of a projectile would now be directed toward the subsequent protective layers, thus

presenting a much larger area to said subsequent protective layers and therefore distributing the impact energy over a larger area and slowing down further penetration of said projectiles. To slow down or defeat penetration through said body armor of said projectiles which may impact between said individual hard non-planar means fastened to the surface of said first protective layer, at least one second protective layer is situated beneath the first protective layer. The second protective layer also has a base layer of penetration-resistant material that has fastened to its surface, facing the exterior, a second matrix of individual hard non-planar elements, the front surface of which is non-planar and shaped such that upon impact on the surface of these individual hard non-planar elements.

22 Claims, 25 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 11

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☑ 6. Document ID: US 5723201 A

L1: Entry 6 of 7 File: USPT Mar 3, 1998

US-PAT-NO: 5723201
DOCUMENT-IDENTIFIER: US 5723201 A

TITLE: Penetration resistant protective armor construction

DATE-ISSUED: March 3, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Czetto, Jr.; Paul	Tavernier	FL	33070	

US-CL-CURRENT: 428/181; 428/175, 428/176

ABSTRACT:

A protective armor construction includes a plurality of layers of penetration resistant material. These layers comprise one or more expandable stress layers of flexible penetration resistant material having a plurality of folds therein. The folds are arranged so as to unfold and expand in response to a penetration force exerted on the armor construction, e.g., by a bullet, such as to impede the penetration force and to thereby limit penetration of the armor construction. To provide superior protection, two or more of such expandable stress layers are provided along with multiple unfolded layers disposed in front and behind these layers. The folds of the two expandable layers extend orthogonally to one another while the folds of the individual expandable layers over lap. The folds of the outermost expandable layer face outwardly while the folds of the innermost expandable layer face inwardly.

23 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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☑ 7. Document ID: US 5362527 A

L1: Entry 7 of 7 File: USPT Nov 8, 1994

US-PAT-NO: 5362527
DOCUMENT-IDENTIFIER: US 5362527 A

TITLE: Flexible composites having rigid isolated panels and articles fabricated from same

DATE-ISSUED: November 8, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Harpell; Gary A.	Morristown	NJ		
Prevorsek; Dusan C.	Morristown	NJ		
Gerlach; Max W.	Hackettstown	NJ		

US-CL-CURRENT: 428/33; 2/2.5, 428/105, 428/109, 428/110, 428/113, 428/196, 428/53, 428/76, 428/902, 428/911

ABSTRACT:

A flexible article of manufacture especially suitable for use as a ballistic resistant body armor which comprises one or more composite layers, at least one of said composite layers comprising a base layer having a plurality of planar bodies positioned between two sandwiching flexible layers out of contact with each other and a plurality of planar bodies positioned on a surface of said base layer out of contact with each other and in disalignment with the sandwiched planar bodies.

42 Claims, 31 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 11

Term	Documents
"5362527".USPT.	7
5362527S	0
"5362527".USPT.	7
(5362527).USPT.	7

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Search Results - Record(s) 1 through 4 of 4 returned.

1. Document ID: US 5443883 A

L1: Entry 1 of 4 File: USPT Aug 22, 1995

US-PAT-NO: 5443883
DOCUMENT-IDENTIFIER: US 5443883 A

TITLE: Ballistic panel

DATE-ISSUED: August 22, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Park; Andrew D.	Midlothian	VA	23113	

US-CL-CURRENT: 428/103; 2/2.5, 428/101, 428/408, 428/911, 442/392, 442/398

ABSTRACT:

A ballistic laminate structure in sheet form, which includes a first array of high performance, unidirectionally-oriented fiber bundles and a second array of high performance, unidirectionally-oriented fiber bundles cross-plied at an angle with respect to the first array of fiber bundles, and laminated to the first array of fiber bundles in the absence of adhesives or bonding agents. First and second thermoplastic films are bonded to outer surfaces of the laminated first and second arrays of unidirectional fiber bundles without penetration of the films into fiber bundles or through the laminate from one side to the other.

12 Claims, 10 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 8

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

2. Document ID: US 4633528 A

L1: Entry 2 of 4 File: USPT Jan 6, 1987

US-PAT-NO: 4633528
DOCUMENT-IDENTIFIER: US 4633528 A

TITLE: Bullet affecting/deflecting material

DATE-ISSUED: January 6, 1987

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Brandt; Raymond W.	Fort Wayne	IN	46815	

US-CL-CURRENT: 2/2.5; 428/156, 428/161, 428/164, 428/172, 428/911

ABSTRACT:

A plate adapted to form a device for protecting a human body or the like has one surface formed in a plane at an angle with respect to the plane of an opposing surface. Pairs of such plates with the angled surfaces abutting can be enclosed in pockets formed in a flexible material to provide a sheet of protective material. A plurality of pairs of the plates can be arranged in overlapping pockets in rows and columns to form a protective vest or coat.

10 Claims, 10 Drawing figures
Exemplary Claim Number: 1,7
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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3. Document ID: US 3380406 A

L1: Entry 3 of 4 File: USPT Apr 30, 1968

US-PAT-NO: 3380406
DOCUMENT-IDENTIFIER: US 3380406 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: April 30, 1968

US-CL-CURRENT: 109/80; 89/36.02

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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4. Document ID: US 2318301 A

L1: Entry 4 of 4 File: USPT May 4, 1943

US-PAT-NO: 2318301
DOCUMENT-IDENTIFIER: US 2318301 A

TITLE: TEXT NOT AVAILABLE

DATE-ISSUED: May 4, 1943

US-CL-CURRENT: 109/81; 109/83, 89/36.02

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw Desc | Image

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Term	Documents
"3380406"[USPT]	1
3380406S	0
"2318301"[USPT]	1
2318301S	0
"4633528"[USPT]	1
4633528S	0
"5443883"[USPT]	1
5443883S	0
("3380406" OR "2318301" OR "4633528" OR "5443883")[PN].USPT.	4
((3380406 OR 2318301 OR 4633528 OR 5443883)[PN]).USPT.	4

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Materials Letters
Volume 57, Issue 2, December 2002, Pages 518-524

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- EPO Abstracts Database
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- IBM Technical Disclosure Bulletins

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DATE: Friday, December 06, 2002 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB; PLUR=YES; OP=ADJ			
L16	l5 and l14	22	L16
L15	l1 and l14	8	L15
L14	l8 and l12 and l13	3156	L14
L13	impregnate or soak	31156	L13
L12	polymeric same material	122786	L12
L11	l8 and l9 and l10	0	L11
L10	bullet proof or projectile proof	632	L10
L9	polymeric material same (impregnate or soak)	185	L9
L8	assembly or composite or laminate	1109888	L8
L7	l1 and l2 and l3 and l4	1	L7
L6	l1 and l2 and l3 and l4 and l5	1	L6
L5	firearm projectile or bullet	10513	L5
L4	monoblock same composite	20	L4
L3	opaque	90886	L3
L2	transparent	286273	L2
L1	ARMOR same (assembly or laminate)	882	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 22 of 22 returned.

1. Document ID: US 20020158095 A1

L16: Entry 1 of 22 File: PGPB Oct 31, 2002

PGPUB-DOCUMENT-NUMBER: 20020158095
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020158095 A1

TITLE: Securing mechanisms for preventing access to a firearm by unauthorized users, and safety housing for use therewith

PUBLICATION-DATE: October 31, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vor Keller, Albert W.	Marietta	GA	US	
Fletcher, David R.	Atlanta	GA	US	
Chinn, Robert C.	Atlanta	GA	US	

US-CL-CURRENT: 224/244; 224/196

ABSTRACT:

A securing mechanism for use in a holster, gun safe, base station, recharging/docking station, gun rack, or other safety housing for a firearm or other item, including one or more retaining members that engage the trigger guard, barrel, or other part of the firearm to prevent withdrawal of the firearm from the safety housing by anyone other than an authorized user of the firearm. The securing mechanism includes a biometric identification mechanism such as a fingerprint sensor for scanning fingerprint information of a prospective user of the firearm, and a processor for comparing the scanned biometric information with stored biometric information of an authorized user and releasing the retaining member only if the scanned biometric information matches that of the authorized user.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

2. Document ID: US 20020153096 A1

L16: Entry 2 of 22 File: PGPB Oct 24, 2002

PGPUB-DOCUMENT-NUMBER: 20020153096
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020153096 A1

TITLE: Metathesis-active adhesion agents methods for enhancing polymer adhesion to surfaces

PUBLICATION-DATE: October 24, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Giardello, Michael A.	Pasadena	CA	US	
Haar, Christopher M.	Pasadena	CA	US	

US-CL-CURRENT: 156/334

ABSTRACT:

The invention discloses an adhesion agent composition comprising at least one C.sub.3-C.sub.200 olefin compound having at least one metathesis active double bond, wherein the olefin is substituted or unsubstituted; and at least one compatibilizing functionality for interacting with a substrate surface. The substrate surface can be any surface, for example, silicate glasses, silicate minerals, metals, metal alloys, ceramics, natural stones, plastics, carbon, silicon, and semiconductors. The invention also discloses articles of manufacture utilizing these adhesion agents as well as methods for adhering a polyolefin to a substrate surface.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☑ 3. Document ID: US 20020147483 A1

L16: Entry 3 of 22 File: PGPB Oct 10, 2002

PGPUB-DOCUMENT-NUMBER: 20020147483
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020147483 A1

TITLE: Protective multi-layered liquid retaining composite

PUBLICATION-DATE: October 10, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Bumbarger, Scott A.	Decatur	AL	US	
Bumbarger, Thomas H.	Decatur	AL	US	

US-CL-CURRENT: 607/108

ABSTRACT:

A multi-layered composite comprising a protective layer, a retaining layer, a conductive layer and a filler layer intermediate the retainer and conductive layers. The filler layer is impregnated with liquid absorbent particles and/or fibers. An optional protective layer having specific characteristic for protection against extreme temperatures, physical impacts and the like is specifically disclosed for use in combination with the retainer, filler and conductive layers. The protective layer provides additional protection of the person from catastrophic events such as exposure of a person to fire and/or severe impact such as may be caused by gunfire.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20010048009 A1

L16: Entry 4 of 22 File: PGPB Dec 6, 2001

PGPUB-DOCUMENT-NUMBER: 20010048009
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010048009 A1

TITLE: Safety holster for preventing access to a firearm by unauthorized users

PUBLICATION-DATE: December 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Vor Keller, Al	Marietta	GA	US	
Fletcher, David R.	Atlanta	GA	US	
Chinn, Robert C.	Atlanta	GA	US	

US-CL-CURRENT: 224/244; 224/243, 224/911

ABSTRACT:

A safety holster for a firearm, including two pivotally mounted retaining members that cooperate to engage the trigger guard of the firearm and prevent withdrawal of the firearm from the holster by anyone other than an authorized user of the firearm. The holster includes a fingerprint sensor for scanning fingerprint information of a perspective user of the firearm, and a processor for comparing the scanned fingerprint information with stored fingerprint information of an authorized user and releasing the retaining member only if the scanned fingerprint information matches that of the authorized user.

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6409875 B1

L16: Entry 5 of 22 File: USPT Jun 25, 2002

US-PAT-NO: 6409875
DOCUMENT-IDENTIFIER: US 6409875 B1

TITLE: Metathesis-active adhesion agents and methods for enhancing polymer adhesion to surfaces

DATE-ISSUED: June 25, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Giardello; Michael A.	Pasadena	CA		
Haar; Christopher M.	Pasadena	CA		

US-CL-CURRENT: 156/334; 428/420, 428/500, 525/332.1, 526/171, 526/280, 526/348

ABSTRACT:

The invention discloses an adhesion agent composition comprising at least one C.sub.3 -C.sub.200 olefin compound having at least one metathesis active double

bond, wherein the olefin is substituted or unsubstituted; and at least one compatibilizing functionality for interacting with a substrate surface. The substrate surface can be any surface, for example, silicate glasses, silicate minerals, metals, metal alloys, ceramics, natural stones, plastics, carbon, silicon, and semiconductors. The invention also discloses articles of manufacture utilizing these adhesion agents as well as methods for adhering a polyolefin to a substrate surface.

22 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 6. Document ID: US 6371977 B1

L16: Entry 6 of 22 File: USPT Apr 16, 2002

US-PAT-NO: 6371977
DOCUMENT-IDENTIFIER: US 6371977 B1

TITLE: Protective multi-layered liquid retaining composite

DATE-ISSUED: April 16, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bumbarger; Scott A.	Decatur	AL		
Bumbarger; Thomas H.	Decatur	AL		

US-CL-CURRENT: 607/108; 2/102, 428/372, 607/112, 607/96

ABSTRACT:

A multi-layered composite comprising a protective layer, a retaining layer, a conductive layer and a filler layer intermediate the retainer and conductive layers. The filler layer is impregnated with liquid absorbent particles and/or fibers. An optional protective layer having specific characteristic for protection against extreme temperatures, physical impacts and the like is specifically disclosed for use in combination with the retainer, filler and conductive layers. The protective layer provides additional protection of the person from catastrophic events such as exposure of a person to fire and/or severe impact such as may be caused by gunfire.

35 Claims, 12 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 10

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 7. Document ID: US 5804015 A

L16: Entry 7 of 22 File: USPT Sep 8, 1998

US-PAT-NO: 5804015
DOCUMENT-IDENTIFIER: US 5804015 A

TITLE: Textured ballistic article

DATE-ISSUED: September 8, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McCarter; Kevin Scott	Richmond	VA		
Young; Steven Anthony	Richmond	VA		
Laws; Pamela Kay	Richmond	VA		

US-CL-CURRENT: 156/209; 156/220, 264/284, 264/293

ABSTRACT:

An article that includes at least two networks of high strength fibers and a matrix material which impregnates the high strength fibers to form a composite element having a first plane profile and a second plane profile, wherein at least one of the first and second plane profiles has on its surface a textured pattern, and the matrix material is distributed substantially uniformly over the textured plane profile, and a method for making the composite element.

8 Claims, 1 Drawing figures
Exemplary Claim Number: 4
Number of Drawing Sheets: 1

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8. Document ID: US 5765600 A

L16: Entry 8 of 22 File: USPT Jun 16, 1998

US-PAT-NO: 5765600
DOCUMENT-IDENTIFIER: US 5765600 A

TITLE: Pipe designs using composite materials

DATE-ISSUED: June 16, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Newaz; Golam M.	Granville	OH		
Cassady; Michael J.	Mount Vernon	OH		
Lipinsky; Edward S.	Worthington	OH		
Hattery; Gary R.	Columbus	OH		

US-CL-CURRENT: 138/141; 138/125, 138/99

ABSTRACT:

Methods for producing improved pipe structures for natural gas distribution pipelines produce a thin fibrous jacket or layer which can inhibit and prevent cracks in natural gas distribution piping by preventing surface scratches as well as by enhancing the pipe strength. Thermoplastic fibers are preferred in accordance with methods and structures of the present invention to facilitate the use of joining techniques and hot-tapping techniques common in the natural gas distribution industry. Non-woven, heat shrinkable fibers are also employed in sleeve structures

to produce a protective fibrous jacket or layer.

9 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 5693412 A

L16: Entry 9 of 22 File: USPT Dec 2, 1997

US-PAT-NO: 5693412
DOCUMENT-IDENTIFIER: US 5693412 A

TITLE: Gas impermeable, elastically deformable laminate and inflatable articles formed therefrom

DATE-ISSUED: December 2, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Walters; William D.	Byron	CA	94514	

US-CL-CURRENT: 428/317.1; 428/317.7

ABSTRACT:

An inventive laminate is provided useful in forming inflatable articles, such as rafts and kayaks, automobile safety bags, air craft and life saving jackets/vests, diving buoyancy compensator vests, medical therapeutic containers, waders, packaging material, inflatable boots and soles, inflatable shoes and soles, and the like. The laminate includes an elastomer layer capable of repeated two-dimensional stretch and retraction. Opposed to the elastomer layer is a first substantially gas impermeable layer. The two layers are substantially continuously adhered to one another and maintained in laminated form. Products formed from the laminate can be repeatedly stretched and retract to accommodate substantial volume increases due to elastic deformations in response to elevated pressures. Because the laminate is elastically deformable, lower inflation pressures can be used in inflatable clothing articles, such as buoyancy compensators, which results in a more comfortable garment.

34 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 10. Document ID: US 5690526 A

L16: Entry 10 of 22 File: USPT Nov 25, 1997

US-PAT-NO: 5690526
DOCUMENT-IDENTIFIER: US 5690526 A

TITLE: High strength, ballistic resistant composites

DATE-ISSUED: November 25, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Chi-Tsun Leroy	Chesterfield	VA	23832	
Wilson; Laura G.	Chester	VA	23831	

US-CL-CURRENT: 442/59; 428/902, 428/911, 442/239, 442/254, 442/318, 442/324, 442/326, 442/391

ABSTRACT:

An article made from at least one network of high strength fibers and a thermoplastic polyurethane matrix material derived from an aliphatic didiisocyanate and a polyol. Preferably, the article is made from at least one prepreg element which includes at least two adjacent layers of the high strength fiber network in the thermoplastic polyurethane matrix material.

10 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

☑ 11. Document ID: US 5587230 A

L16: Entry 11 of 22 File: USPT Dec 24, 1996

US-PAT-NO: 5587230
DOCUMENT-IDENTIFIER: US 5587230 A

TITLE: High strength composite

DATE-ISSUED: December 24, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Leroy C.	Richmond	VA		
Wilson; Laura G.	Chester	VA		
Bhatnagar; Ashok	Chester	VA		
Li; Hsin L.	Parsippany	NJ		

US-CL-CURRENT: 442/135; 427/372.2, 427/374.1, 427/389.9, 428/902, 428/911

ABSTRACT:

An article made from at least one network of high strength fibers and a matrix composition that includes a vinyl ester and diallyl phthalate. Preferably, the article is made from at least one prepreg element which includes at least two adjacent layers of the high strength fiber network in the vinyl ester-containing matrix composition. The prepreg element is made by applying a mixture of vinyl ester, diallyl phthalate and a carbon-carbon saturated solvent to the high strength fiber network.

15 Claims, 1 Drawing figures
Exemplary Claim Number: 1

Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 12. Document ID: US 5567498 A

L16: Entry 12 of 22 File: USPT Oct 22, 1996

US-PAT-NO: 5567498
DOCUMENT-IDENTIFIER: US 5567498 A

TITLE: Textured ballistic article

DATE-ISSUED: October 22, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
McCarter; Kevin S.	Richmond	VA		
Young; Steven A.	Richmond	VA		
Laws; Pamela K.	Richmond	VA		

US-CL-CURRENT: 428/113; 2/2.5, 428/105, 428/109, 428/111, 428/114, 428/409, 428/902, 428/911

ABSTRACT:

An article that includes at least two networks of high strength fibers and a matrix material which impregnates the high strength fibers to form a composite element having a first plane profile and a second plane profile, wherein at least one of the first and second plane profiles has on its surface a textured pattern, and the matrix material is distributed substantially uniformly over the textured plane profile, and a method for making the composite element.

20 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☑ 13. Document ID: US 5552208 A

L16: Entry 13 of 22 File: USPT Sep 3, 1996

US-PAT-NO: 5552208
DOCUMENT-IDENTIFIER: US 5552208 A

TITLE: High strength composite

DATE-ISSUED: September 3, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Leroy C.-T.	Richmond	VA		
Wilson; Laura G.	Chester	VA		
Bhatnagar; Ashok	Chester	VA		
Li; Hsin L.	Parsippany	NJ		

US-CL-CURRENT: 428/113; 2/2.5, 428/299.1, 428/299.4, 428/299.7, 428/902, 428/911

ABSTRACT:

An article made from at least one network of high strength fibers and a matrix composition that includes a vinyl ester and diallyl phthalate. Preferably, the article is made from at least one prepreg element which includes at least two adjacent layers of the high strength fiber network in the vinyl ester-containing matrix composition. The prepreg element is made by applying a mixture of vinyl ester, diallyl phthalate and a carbon-carbon saturated solvent to the high strength fiber network.

23 Claims, 1 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

☑ 14. Document ID: US 5354605 A

L16: Entry 14 of 22 File: USPT Oct 11, 1994

US-PAT-NO: 5354605
DOCUMENT-IDENTIFIER: US 5354605 A

TITLE: Soft armor composite

DATE-ISSUED: October 11, 1994

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Lin; Leroy C.-T.	Chesterfield	VA		
Wilson; Laura G.	Chesterfield	VA		
Cunningham; David V.	Chesterfield	VA		

US-CL-CURRENT: 428/105; 428/114, 428/347, 428/348, 428/492, 428/902, 428/911, 442/135, 442/398

ABSTRACT:

An article which includes at least one layer of a network of high strength fibers, preferably extended chain polyethylene fibers. The fibers of the network are coated with a very low modulus elastomeric matrix material, preferably an acrylic ester copolymer, which has a tensile modulus of less than about 100 psi, a tenacity of less than 450 psi (3105 kPa), a glass transition temperature (T.sub.g) of about -10.degree. C. to about -20.degree. C., and an elongation-to-break of at least about 2000%. The article can further include a second matrix material, preferably made of polyethylene, adjacent to the fiber network layer.

20 Claims, 1 Drawing figures
Exemplary Claim Number: 1

Number of Drawing Sheets: 1

☑ 15. Document ID: US 5271879 A

L16: Entry 15 of 22 File: USPT Dec 21, 1993

US-PAT-NO: 5271879
DOCUMENT-IDENTIFIER: US 5271879 A

TITLE: Method of forming a hybrid composite sandwich structure

DATE-ISSUED: December 21, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Saatchi; Hossein	Rockford	IL		
Smith; Kurt A.	Rockford	IL		

US-CL-CURRENT: 264/46.5; 156/309.6, 156/79, 264/257, 264/258, 264/54

ABSTRACT:

Current processes for the formation of hybrid composite sandwich structures are expensive, often result in weak unsound products, require time and labor intensive secondary operations and are not readily adaptable for custom design work. These and other problems are solved by a relatively simple and inexpensive process producing hybrid composite sandwiched structures which includes placing core materials 24 sandwiched by multiples layers including at least one ceramic layer 46 or metallic layer 38 and having polymeric films 32, 34, 40, 42 positioned between substantially all the layers in a mold cavity 18. When the contents of the mold cavity 18 are heated to consolidate this structure, the polymeric films 32, 34, 40, 42 melt and act as an adhesive between the layers of the structure formed.

9 Claims, 2 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 2

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 16. Document ID: US 5226384 A

L16: Entry 16 of 22 File: USPT Jul 13, 1993

US-PAT-NO: 5226384
DOCUMENT-IDENTIFIER: US 5226384 A

TITLE: Damage- and pest-resistant animal bed

DATE-ISSUED: July 13, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jordan; Elizabeth S.	Oakland	CA	94611	

US-CL-CURRENT: 119/28.5; 5/420, 5/737

ABSTRACT:

An animal bed is disclosed which is resistant to damage and infiltration by pests. It is formed of a resilient core having generally a slab shape and, surrounding and encasing the core, a cover formed of at least an aramid fabric sheet. In a preferred form, the cover is a laminate made of the aramid fabric sheet with a polyester fabric sheet laminated to it. Preferably these materials are respectively a KEVLAR.RTM. aramid sheet and a MYLAR.RTM. polyester sheet. The core of the bed is preferably made of resilient polymeric foam, rubber, fiber fill, wood shavings or wood chips, of which the foam or rubber is preferred. A soft cloth coverlet can be used to cover the entire bed if desired. The bed of this invention is highly resistant to destructive activities of the animal, such as biting or clawing. It is also impervious to water and to pest infestation. It can be easily cleaned and is portable. Uses include beds for show dogs and hunting dogs, and as whelping beds.

11 Claims, 9 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

☐ 17. Document ID: US 4939996 A

L16: Entry 17 of 22 File: USPT Jul 10, 1990

US-PAT-NO: 4939996
DOCUMENT-IDENTIFIER: US 4939996 A

TITLE: Ceramic munitions projectile

DATE-ISSUED: July 10, 1990

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Dinkha; Brian I.	Westminster	CO		
Jasa; Paul B.	Denver	CO		
Seegmiller; Brian	Arvada	CO		
Simmons; Alden C.	Boulder	CO		

US-CL-CURRENT: 102/501; 102/444, 102/506, 102/529, 501/103, 501/104, 501/128

ABSTRACT:

A ceramic munitions projectile, particularly useful for practice or target munitions is provided. The projectile has a tensile strength greater than about 250 MPa, a critical stress intensity factor greater than about 6 MPam.sup.1/2, and a Weibull modulus greater than about 10. Preferably the projectile is frangible.

14 Claims, 4 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

18. Document ID: US 4775541 A

L16: Entry 18 of 22 File: USPT Oct 4, 1988

US-PAT-NO: 4775541
DOCUMENT-IDENTIFIER: US 4775541 A

TITLE: Ion exchange method of treating liquid fermentation products to reduce the content of coloring matter therein

DATE-ISSUED: October 4, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Brown; Sand T.	Lakeland	FL		
Derrick, Jr.; John R.	Auburndale	FL		
Smith; C. Byron	Lake County	FL		

US-CL-CURRENT: 426/271; 210/670, 426/330.4, 426/592

ABSTRACT:

Liquid natural fermentation products, such as wines, are treated to reduce the content of coloring matter therein without substantially deleteriously affecting the other vinous qualities thereby by the steps of passing the liquid product through a granular bed of a strongly basic macro-porous anion exchange resin in hydroxyl form to substantially increase the alkalinity of such liquid product, then passing the more alkaline liquid product through a granular bed of a strongly acidic cation exchange resin in hydrogen form to generally restore its acidity, and recovering the thus-treated liquid product.

6 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

19. Document ID: US 4773416 A

L16: Entry 19 of 22 File: USPT Sep 27, 1988

US-PAT-NO: 4773416
DOCUMENT-IDENTIFIER: US 4773416 A

TITLE: Surgery in horses

DATE-ISSUED: September 27, 1988

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Hourahane; Donald H.	Manor Court, Manor Park, Chiselhurst, Kent			GB

US-CL-CURRENT: 606/1; 604/164.11

ABSTRACT:

The invention provides a method of surgery in horses for strengthening part of a horses flexo-tendon in a horse's leg. A cannula containing a probe projecting therefrom is inserted lengthwise into the tendon to intersect the part of the tendon to be strengthened, the probe forming a pocket in the tendon at the inner end of the cannula. The probe is removed from the cannula and an implant is inserted through the cannula so that its inner end is located and gripped in the pocket. The cannula is then removed to leave the implant located in the tendon and intersecting the part to be strengthened. The invention also provides a surgical kit comprising said cannula, probe and implant, and a thruster for thrusting the implant into the cannula; and the invention includes also the implant of the kit.

19 Claims, 15 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 4

☑ 20. Document ID: US 4457985 A

L16: Entry 20 of 22 File: USPT Jul 3, 1984

US-PAT-NO: 4457985
DOCUMENT-IDENTIFIER: US 4457985 A

TITLE: Ballistic-resistant article

DATE-ISSUED: July 3, 1984

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Harpell; Gary A.	Morristown	NJ		
Kavesh; Sheldon	Whippany	NJ		
Palley; Igor	Madison	NJ		
Prevorsek; Dusan C.	Morristown	NJ		

US-CL-CURRENT: 442/301; 428/911

ABSTRACT:

Articles such as vests, helmets and structural elements containing a network of ultrahigh molecular weight, high strength, high modulus polyethylene or polypropylene fibers. The fibers, and especially polyethylene fibers of 15, 20, 25, 30 or more g/denier tenacity, and 300, 500, 1,000, 1,500 or more g/denier tensile modulus impart exceptional ballistic resistance to the articles in spite of the melting points, e.g. 145.degree.-151.degree. C. for the polyethylene fibers and 168.degree.-171.degree. C. for the polypropylene fibers, which are high for these polymers, but substantially lower than the 200.degree. C. or more melting point previously thought necessary for good ballistic resistance.

16 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☑ 21. Document ID: US 4403012 A

L16: Entry 21 of 22 File: USPT Sep 6, 1983

US-PAT-NO: 4403012
DOCUMENT-IDENTIFIER: US 4403012 A

TITLE: Ballistic-resistant article

DATE-ISSUED: September 6, 1983

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Harpell; Gary A.	Morristown	NJ		
Kavesh; Sheldon	Whippany	NJ		
Palley; Igor	Madison	NJ		
Prevorsek; Dusan C.	Morristown	NJ		

US-CL-CURRENT: 442/135; 264/257, 264/271.1, 428/902, 428/911, 442/170

ABSTRACT:

Articles such as vests, helmets and structural elements containing a network of ultrahigh molecular weight, high strength, high modulus polyethylene or polypropylene fibers. The fibers, and especially polyethylene fibers of 15, 20, 25, 30 or more g/denier tenacity, and 300, 500, 1000, 1500 or more g/denier tensile modulus impart exceptional ballistic resistance to the articles in spite of the melting points, e.g. 145.degree.-151.degree. C. for the polyethylene fibers and 168.degree.-171.degree. C. for the polypropylene fibers, which are high for these polymers, but substantially lower than the 200.degree. C. or more melting point previously thought necessary for good ballistic resistance.

11 Claims, 0 Drawing figures
Exemplary Claim Number: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 22. Document ID: US 4250996 A

L16: Entry 22 of 22 File: USPT Feb 17, 1981

US-PAT-NO: 4250996
DOCUMENT-IDENTIFIER: US 4250996 A

TITLE: Use of chemically modified polyolefins for bonding nails together in a configuration suitable for use in a power driven nailer

DATE-ISSUED: February 17, 1981

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bartz; Kenneth W.	Baytown	TX		

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Prestressed ceramics and improvement of impact resistance

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Available online 26 June 2002.

Abstract

The shrink-fit technique has been used to study the effect of prestress and confinement on ceramic materials. Calculation of prestress in ceramics tile wrapped by metal and optimized design for the composite are presented. Alumina tile confined with aluminum alloy, which was in a state of triaxial compression, was chosen as the target in impact tests to investigate the impact resistance of prestressed ceramics. The results from two types of impact tests indicate that both impact resistance and armor-piercing resistance are greatly enhanced due to the presence of prestress and compact confinements, and that triaxial prestress is much better than biaxial prestress for enhancing the impact resistance of ceramics.

Author Keywords: Prestress; Ceramic; Resistance

Corresponding author

US-CL-CURRENT: 206/343; 227/136

ABSTRACT:

Improved fastener articles, comprising a plurality of preferably rod-shaped fastener elements, such as nails or staples, are maintained in a predetermined configuration by bonding them together with one or more of either strips, films, or powdered particles of a specially formulated, adherent polyolefin copolymer. These fastener articles are especially adapted for use in automatic dispensers, i.e. nailers or staplers.

28 Claims, 3 Drawing figures
Exemplary Claim Number: 1
Number of Drawing Sheets: 1

Term	Documents
(5 AND 14).USPT,PGPB.	22
(L5 AND L14).USPT,PGPB.	22